GROUNDED

A Quarterly publication of WSUE
Grant-Adams Master Gardeners

Newsletter March 2023
Volume12 Number 1

Grant-Adams Counties Master Gardeners, 1525 E. Wheeler Road, Moses Lake, WA 98837
http://county.wsu.edu/grant-adams/Pages/default.aspx · ga.mgvolunteers@wsu.edu

6th Annual Columbia Basin Eco-Gardening Symposium: April 22, 2023

After a 3-year hiatus due to COVID, the annual Columbia Basin Eco-Symposium is back. Co-sponsored by the Columbia Basin Conservation District and the WSU Grant-Adams Master Gardeners, this informative gardening symposium will take place on Saturday, April 22, from 9 AM to 1 AM at the Columbia Basin Technical Skills Center (900 E. Yonezawa Blvd.) in Moses Lake. The public is invited to attend this free event. Doors open at 8:30 AM.

The theme of the symposium this year is *Gardening with Sustainable Solutions*. Four dynamic speakers from around the state will share their insights on gardening challenges and opportunities in times of changing climate. An overview of their presentations and biographies are presented below. The symposium will also offer the opportunity for attendees to talk with various vendors stationed at the Exhibit Hall before the program starts and during breaks. On hand will be representatives available to answer questions as well as provide handouts and other information from the following exhibitors:

- Best Test Analytical Labs
- BFI Native Seeds
- Central Basin Audubon Society
- Columbia Basin Conservation District
- Noxious Weed Board of Grant County
- Pheasants Forever
- USDA Natural Resources Conservation Service
- Washington Native Plant Society
- WSDA Plant Protection Division
- WSU Grant-Adams Master Gardeners
- Xerces Society

Mini demonstrations will also be featured during session breaks. Master Gardener Intern Bobbie Bodenman will demonstrate how to create beautiful hanging baskets using a thriller, filler, and spiller technique. Dinah Rouleau, Project Manager for the Columbia Basin Conservation District, will explain how to create a bee box in your garden.

The event also offers free refreshments and gardening door prizes donated by area businesses. People are encouraged to pre-register for this free event by going to the Columbia Basin Conservation District's website to sign up early: www.columbiabasincd.org/eco-gardening-symposium. Space is limited.

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The first speaker on the gardening symposium program is Katie Doonan, Extension Coordinator for Washington State University's Center for Sustaining Agriculture & Natural Resources in Puyallup, Washington. In her presentation, Climate Change and Planning for Uncertainty, she will discuss:

- What is climate change?
- What is the potential for climate change effects on gardens?
- How can we prepare with increasing uncertainty about changes?

Climate resilience is best achieved by understanding the variables at play and building adaptable strategies into garden planning. Her talk will outline the basics of climate change in a garden context and strategies to implement how to help prepare gardeners for changing conditions.

Katie Doonan's primary work focus is on climate resilience in agricultural production. Originally from an alfalfa and cattle ranch in eastern California, she strives to merge sustainable agriculture production with natural resource conservation. Katie has degrees in Organic and Sustainable Agriculture and Biology from Washington State University.

The second presenter, Dr. Mike Bush, will speak about Washington State Department of Agriculture (WSDA) efforts to protect agriculture in the Pacific Northwest against invasive pest species. His topic "How Gardeners Can Help Contain Invasive Pests in the Pacific Northwest" will focus on insects, although there may be references to animals, plants (weeds), and plant diseases.

Dr. Bush retired from Washington State University Extension in 2018 after 20 years of service and now works with the WSDA invasive pest program in Yakima, Washington. His career in entomology has taken him from upstate New York to Cornell University, Purdue University in Indiana, to North Carolina State University, Michigan State University, and Washington State University before settling in Central Washington.

Over the past few years, WSDA has had success in recruiting the general public to assist with pest control efforts. Dr. Bush will extend these opportunities to symposium participants. With climate change, global movement of crops and plant material, WSDA will benefit from the eyes, camera lens, and documentation provided by Citizen Scientists.

He will be joined by fellow WSDA pest biologist, Joshua Milnes, at the WSDA booth display where symposium attendees can get a "searching image" of invasive insects and view the world of insects.

Heather Wendt and Dinah Rouleau will present the final talk of the program on "Heritage Gardens and Drought-Tolerant Landscapes." Their presentation will focus on how the availability of irrigation water will affect landscaping considerations. Heather and Dinah will showcase the Conservation District's Heritage Garden Program and how using native and low-water-use plants can create beautiful water-wise and pollinator-friendly landscapes in the Columbia Basin

Heather Wendt is the Assistant Manager for both the Benton Conservation District and the Franklin Conservation District. She is also the co-creator of the Heritage Garden Program and co-author of the *Plant Selection Guide, Heritage Gardens of the Columbia River Basin*.

Dinah Rouleau is the Project Manager of the Columbia Basin Conservation District and has a degree in Plant Biology. Among her responsibilities, Rouleau promotes and coordinates the Heritage Garden Program in Grant County and works with farmers on conservation practice applications.

Master Gardener Program Celebrates 50 Years

Four major events will be held in Washington State to commemorate the establishment of the Washington State University (WSU) Extension Master Gardener program 50 years ago. All events are free and open to the public.

Beginning as a grass roots movement that started at Washington State University in 1973, the Master Gardener Extension program has grown into 4,000 organizations across the United States, Canada, South Korea, and recently in Puerto Rico. Over this 50-year period, WSU Master Gardeners have shared their knowledge within their communities by teaching gardeners how to grow their own food sustainably, improve their communities, and preserve domestic and native landscapes. Each generation of master gardeners passes on the values of stewardship that promote efforts to conserve water, fortify soil health, and bolster a healthy food supply chain.

The first commemorative event kicks off at the Puyallup Research and Extension Center at 2606 W. Pioneer in Puyallup on April 8, 2023, from 1 to 4 PM. It will be an afternoon of talks from stakeholders, WSU representatives, and MGs from the past and present. The event will also include a tour of demonstration gardens, and refreshments will be provided.

The next celebratory event will be held on May 20, 2023, from 1 to 4 PM at the Irrigated Agriculture and Research and Extension Center located at 2406 N Bunn Rd. in Prosser. This center is the focal point for the university's irrigated agriculture programs in Washington, where it provides cooperative research among WSU, USDA-ARS, WSDA. The Research and Extension Center has pioneered unique and innovative developments in irrigated agriculture since it was established 100 years ago. Refreshments will be provided.

Everyone in the Columbia Basin is encouraged to attend the third commemorative event that is closest to the Grant-Adams service area. It will be held at the Tree Fruit Research and Extension Center, 1100 N Western Ave. in Wenatchee on June 10, 2023, from 10 AM to 1 PM, and is sponsored by the Chelan/Douglas Extension Master Gardeners. The event will feature exhibits and demonstrations that provide practical, helpful information about local gardening.

The final commemorative event will be held from 10 AM to 12 PM at the Northwestern Washington Research and Extension Center at 16640 SR536, Mount Vernon, WA, on July 13, 2023. It will offer tours of themed gardens that demonstrate how gardening and landscaping can be productive and beautiful while employing sustainable gardening practices. Refreshments will be served.

Grant-Adams Annual Plant Sale May 6th . . . *by Mark Amara*

Master Gardeners (MGs) have been busy this month planting a wide variety of vegetable and flower seeds in preparation for its annual plant sale at the Moses Lake Farmers Market, which will be held at McCosh Park on Saturday, May 6th, from 8 AM to 1 AM. Due to COVID restrictions, the annual plant sale has not been held at the Farmers Market since the spring of 2019. The MG group is looking forward once again to offering quality and reasonably priced annuals, perennials, vegetables, and herbs for sale to the public as well as answering gardening questions and providing plant care and planting tips at this event.

Since the Grant-Adams Master Gardener program is not funded through WSU, this annual plant sale is the major source, along with donations, of raising funds to support our varied activities. The funds help the program meet its mission to provide research-based education about urban horticulture and sustainable gardening to the residents of Grant-Adams Counties. MG educational activities include co-sponsoring the annual Eco-Symposium with the Columbia Basin Conservation District; maintaining three demonstration gardens in Moses Lake, Soap Lake, and Othello; supporting the seed library at the Ephrata Public Library; providing educational materials for in-person plant clinics; and providing biannual WSU MG intern training.

Last month, MGs held a half-day work party at the greenhouse to sterilize pots, tools, and the general area to ensure a sanitary environment before introducing seeds/plants into it. Severe weather, including heavy snow and high winds in late December and January, damaged the greenhouse causing roof damage and broken pipes. After repairs were made, MGs did extensive cleanup throughout the facility as well.

Marylou Krautscheid uses a backpack sprayer to sterilize the planting tables, walls, and floor of the greenhouse.

MG Interns Sharon Hastings, Deb Russell, Mary Love, Bobbie Bodenman, and Master Gardener Marta Tredway take a break with Mary's husband Randy after cleaning up the greenhouse. Not pictured is Glenn Martin.

Glenn Martin started cuttings from red and orange geraniums last November, and those were the first plants to be transferred to the greenhouse. The cuttings are being propagated for sale to Lamb Weston later this spring as well as for inclusion in the annual plant sale.

This month MGs began planting a variety of heirloom tomato seeds, flower plugs, and other seeds in the greenhouse for the May plant sale.

Glenn Martin at the greenhouse with trays of geraniums and other plants for sale.

Pat McAfee and Maria Reimers planting trays of heirloom tomatoes.

RJ Lembcke sterilizing pots and trays to be used for seed planting.

Marylou Krautscheid and Marta Tredway planting seed pellets in trays.

Patience Harris pruned and watered over 80 geraniums.

Photo credit for all photos: D. Escure

The MGs initiated negotiations at the end of 2021 and early 2022 between Washington State University (WSU) and the Quincy School District (QSD) to use the greenhouse at the Quincy Middle School during the winter and spring months, and the Middle School to use it for the remainder of each year. An agreement was signed last summer. Additional fine tuning was needed to update/repair the building, determine access permissions, set up safety and greenhouse protocols, and ensure heat, water, and power needs were met. In addition, MGs will work with middle school teachers to offer horticultural classes for their students. The greenhouse is spacious inside with several metal tables, a central concrete walkway, water, an irrigation system, heaters and fans, shelving, and a sink. Its dimensions are 30 x 80 ft.

Master Gardener Interns Excel . . . *By Mark Amara*

Five dedicated Master Gardener interns completed the first phase of their training by December 2022. Training consisted of attending in-person lectures, participating in field trips, and successfully taking and passing online WSU training courses on horticultural subjects. Topics included plant biology and identification, pathology and problem diagnoses, soils and plant nutrition, woody and herbaceous landscape plants, fruit and vegetable crops, sustainable gardening, entomology, integrated pest management and pesticides, vertebrate pests, weed management, houseplants, and greenhouse management.

The final phase of the training for the interns now consists of outreach activities during 2023 that may include participating in plant clinics, working in demonstration gardens, teaching or taking classes, writing articles, and helping with the annual gardening symposium. Once each of them completes the required number of hours, her certification as a WSU Extension Master Gardener is assured. Then, to maintain the certification, all WSU Extension Master Gardeners agree to volunteer a minimum number of hours per year, take continuing education classes, and follow WSU Master Gardener standards and procedures.

Left to right, Grant-Adams Master Gardener interns: Mary Love, Deb Russell, Maria Reimers, Sharon Hastings, and Bobbie Bodenman.
Photo Credit: Mark Amara

New Master Gardener training is held every two years in Grant-Adams Counties, with the next training session scheduled for September 2024. Anyone interested in becoming a Master Gardener can pick up an application at the WSU Grant County Extension Office, located at 1525 E. Wheeler Road in Moses Lake, from 8-5 Monday through Friday. Alternately, an application form and program brochure can also be accessed by going to the Grant-Adams Master Gardener website:

https://extension.wsu.edu/grant/gardening/master_gardeners/

The brochure explains the program while the application is intended to provide program leaders with your details and commitment. Completed forms can be dropped off at the WSU Grant County Extension Office, and those applying will be contacted in the summer of 2024 about training dates.

Brochure: https://s3.wp.wsu.edu/uploads/sites/2082/2023/02/MG-Basic-Training-Brochure-2024.pdf
Application: https://s3.wp.wsu.edu/uploads/sites/2082/2019/01/MGVolApplication.pdf

Learn about Native Bee Releases . . . *By Mary Love, Grant-Adams Extension Master Gardener Intern*

Think about this: native bees provide an invaluable service because they pollinate 80% of flowering plants, not to mention approximately 75% of fruits, nuts, and vegetables grown in the U.S. Native bees don't have hives to defend, and females spend their entire lives building their nesting holes, gathering nectar and pollen, and laying eggs. Native bees are generally nonaggressive, having no hive to defend, and will not sting unless trapped under clothing or handled roughly.

Should you introduce native bees to your yard to help with pollination? After all, native bee pollination abilities rival the well-known honey and bumble bee, except that they are solo performers and are often referred to as solitary bees.

One native bee you may have heard of is the orchard mason bee. Orchard is in the bee's name for a reason. Think about what fruit trees you and your closest neighbors have to pollinate and when your fruit trees bloom.

Mason bees seem to prefer apple, cherry, and pear trees, although they will also gather dandelion and Oregon grape nectar. Fruit trees usually bloom very early in the season when temperatures are cool. A good time to release these bees to pollinate your fruit trees bees is no later than the first part of May. The female mason bee only lives for about a month, which is the length of a fruit tree's bloom season.

It's best to release a mixture of small (male) and larger (female) cocoons every other week in multiple installments to spread out their season. Adult mason bees discontinue foraging in early summer, and by late May and June the larvae inside cocoons turn into pupae that develop into adults by fall. If you are providing a home for the mason bee, it needs a house with 8-mm nesting tubes using cardboard or natural reeds or holes cut into wood, a source of clayey mud, available pollen within a 200- to 300-foot radius, and daytime temperatures in the 50º-55ºF range. If your yard doesn't provide the above conditions, they will quickly relocate. Adult mason bees discontinue foraging in early summer and by late May and June, the larvae inside cocoons turn into pupae which develops into adults by fall.

If you grow a vegetable garden and/or summer flower garden, think about raising the leafcutter bee, which might be more suited to your needs. Compared to orchard mason bees who are only active for a few short weeks in the spring, leafcutter bees have a relatively long active period from early spring to late summer, so they have the ability to pollinate a lot of different flowering plants. Incidentally, leafcutter female bees are the only ones with stingers.

Leafcutter bees need housing with 6-mm nesting tubes, temperatures into the 80s, and non-fibrous, thin and flexible leaves without veins, such as those from rose and lilac bushes, to wrap their offspring. Leafcutter bees emerge from their nests when blossoms are open and daytime temperatures are in the high 70º-80º F range. Some of their favorite plants include roses, azaleas, ash, and rosebud.

Sadly, I have learned some of the ways to encourage these types of bees in my yard through failure. So, consider ordering or borrowing a copy of *Mason Bee Revolution* by Dave Hunter and Jill Lightner. They provide great information and instruction on both the mason and the leafcutter species. For those of you interested in releasing your own native bees, I have been happy with mail order products from Crown Bees (https://crownbees.com), though there are undoubtedly other reliable sources.

The dual nest that I have at my house has a drawer in the attic for setting out bee cocoons: two reusable wooden nesting blocks (one with 8 mm holes and another with 6 mm holes) to accommodate Mason and Leafcutter Bees, and a screen to keep birds and, in my case, squirrels out. Photo credit: Mary Love

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Take the "Soil Your Undies" Challenge . . . *By Mark Amara*

Like 2022 at this same time, the WSU Extension Grant-Adams Master Gardeners are again sponsoring a fun and exciting challenge for anyone interested in evaluating their soil health. This experiment is easy and can be done in your own yard or garden. The goal is to build public interest about soil health and watch the results. We encourage the public, school groups or classes, 4-H and/or FFA groups to take the challenge!

Few of us realize or even think about the fact that healthy soil has billions upon billions of microscopic organisms in it. Though it may be hard to imagine, one teaspoon of healthy soil has more microbes than there are people on earth! Soil microbes are important because they feed on organic matter like the cotton in underwear. So, the more cotton in a pair of undies that breaks down and disappears, the healthier your soil is.

Soil microbes also help soil prevent erosion, cycle nutrients, and store water. These factors are all important in maintaining or improving soil health and in helping to keep the soil productive, not only in our lawns, yards and gardens, but also across the nation and the world at large! Other ways to improve soil health include avoiding soil disturbance as much as possible; keeping soil covered with mulch, compost, or organic residues and/or with living plants; and growing a variety of plants to improve/maintain biodiversity.

The challenge consists of "planting" a new clean pair of men's cotton underwear. This experiment began with farmers in Oregon and seems to be spreading across the nation.

It works best to plant in spring or summer. In fall or winter, there may be little activity in the soil especially if the ground is frozen. So, this spring find a place where you want to check the soil. Make sure the planting site is on your property and that it will not be disturbed during the incubation stage.

Here is how it is done:

- Find a suitable location that you can remember and label.
- Bury a pair of underwear 3 inches deep in a site you are curious about, taking a picture of the "before" condition of the underwear.
- Mark the spot where the underwear is planted with a marker flag or stake.
- Wait at least 60 days. This gives soil microbes time to work their magic! Do not disturb the area in which the undies are planted. The more degraded the undies are, the greater the microbial activity there is in the soil and the healthier the soil is.
- After the 60-day waiting period, dig them up. The more deteriorated they are, full of holes or barely holding together, the better your soil health is. Alternatively, the less degraded the undies are, the more unhealthy the soils are. So, having undies that are pretty much gone vs. those that are merely stained and intact is the goal.

Share your results by taking photographs (before and after) though preferably the after condition is what we want to see. Send your pictures to the Master Gardeners at ga.mgvolunteers@wsu.edu. or bring the underwear (in a sealed bag) to the Grant County Extension Office for the Master Gardener program at 1525 E Wheeler Road, Moses Lake. We hope to display the results at the Grant County Fair or other event.

Please identify your name, town and county, where you planted them, undie planting date and harvest date, how you manage the ground, amount of rain or irrigation during the challenge period or other information. Describe how you managed the ground, how often it was watered, or how much rain was received during the challenge period.

Once we receive your information and photos, we will post them on a map so you can see the results and compare your results to others. If there are questions, please let us know. For those who may not have access to a new clean pair of men's cotton underwear, let us know and we can provide you with a pair free-of-charge through the Grant County Extension Office.

Mark Your Calendar

April 8	**50-year Master Gardener Program Celebration**	**1 – 4 PM**	**Puyallup Research and Extension Center 2602 W. Pioneer, Puyallup**
April 22	**6th Annual Columbia Basin Eco-Gardening Symposium**	**9 AM – 1 PM**	**Columbia Basin Technical Skills Center 900 E. Yonezawa Blvd, Moses Lake**
May 6	**Grant-Adams Master Gardener Annual Plant Sale**	**8 AM – Noon**	**Moses Lake Farmers Market McCosh Park, Dogwood St side, Moses Lake**
May 20	**50-year Master Gardener Program Celebration**	**1 – 4 PM**	**Irrigated Agriculture Research and Extension Center 2406 N. Bunn Road, Prosser**
June 10	**50-year Master Gardener Program Celebration**	**10 AM – 1 PM**	**1100 N. Western Ave, Wenatchee**
July 13	**50-year Master Gardener Program Celebration**	**10 AM – 12 PM**	**16640 SR536, Mt. Vernon**

Plant Clinic Schedule

WSU Master Gardener volunteers are available to address your home gardening questions 365 days/24/7 throughout the year. Contact a WSU Master Gardener volunteer with your home gardening questions using the following e-mail address: ga.mgvolunteers@wsu.edu .

You may also call (509) 754-2011, extension 4313, or bring questions or samples to the WSU Grant Extension Office at 1525 E Wheeler Road, Moses Lake, Monday-Friday, 8 AM – 5 PM. For face-to-face contact, or if you have a plant or insect sample that you would like to have identified, please see the Master Gardener volunteers at one of the following locations:

Moses Lake Farmers Market: McCosh Park (Dogwood Street Side) Saturdays, May – October, 8 AM – 5 PM

Quincy Farmers Market: B Street, 1st and 3rd Saturdays, June through September, 8 AM – 5 PM

For help with diagnosis and identification, plant and insect samples can be dropped off at the WSU Extension Office, Monday through Friday, from 8 AM – 5 PM.